

IN THE CLAIMS:

1. (Canceled)
2. (Canceled)
3. (Canceled)
4. (Canceled)
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15. (Canceled)
16. (Canceled)
17. (Canceled)
18. (Canceled)
19. (Canceled)
20. (Canceled)
21. (Canceled)

22. (Canceled)

23. (Canceled)

24. (Canceled)

25. (Canceled)

26. (Currently Amended) A method of communicating that uses a laser beam comprising:

~~generating a conjugate beacon beam incident to a local oscillator beam at an angle of incidence relative thereto;~~

intercepting a receiving means with a conjugate beacon beam;

~~forming a hologram responsive to the angle of incidence; by interfering the conjugate beacon beam with a local oscillator beam, wherein the formed hologram comprises a grating pattern having a fringe orientation and period that are a function of a magnified angle of incidence of the conjugate beacon beam;~~

intercepting the receiving means with a communications beam comprising a configured phase pattern of the conjugate beacon beam;

~~deflecting the communications beam the laser beam through a deflection angle responsive to the hologram, to a fixed course relative to the local oscillator beam as a result of the processed grating pattern; and~~

detecting the deflected communications ~~laser~~ beam.

27. (Cancelled)

28. (Cancelled)

29. (Currently Amended) The communications method defined in ~~Claim 28~~ Claim 26 wherein the detecting step includes aligning a spatial filter with the fixed course of the deflected communications laser beam.

30. (Currently Amended) The communications method defined in ~~Claim 29~~ Claim 26 further comprising the step of demodulating the detected communications laser beam to extract information transmitted therein.

31. (Cancelled)

32. (Currently Amended) The communications method defined in ~~Claim 31~~ Claim 26, further comprising generating a beacon beam having wherein the phase profile is a quadratic phase profile, so that the beacon beam has a spherical diverging wavefront.

33. (Currently Amended) The communications method defined in ~~Claim 31~~ Claim 26 further comprising generating a beacon beam having wherein the phase profile is a spatially random phase pattern.

34. (Cancelled)

35. (Original) The communications method defined in Claim 26 wherein the deflection angle is proportional to the angle of incidence.

36. (Original) A method of communication that uses a laser beam comprising:

intercepting a receiving means with a conjugate beacon beam;

forming a first hologram by interfering the conjugate beacon beam with a local oscillator beam;

generating a secondary beacon beam responsive to the first hologram so that it intercepts a transmitting means;

forming a secondary conjugate beacon beam responsive to the secondary beacon beam;

intercepting the receiving means with the secondary conjugate beacon beam at an angle of incidence;

forming a second hologram responsive to the angle of incidence;

deflecting the laser beam through a deflection angle responsive to the second hologram, to a fixed course relative to the local oscillator beam; and

detecting the deflected laser beam.

37. (Original) The communicating method as recited in Claim 36 wherein the step of forming the second hologram includes interfering the secondary conjugate beacon beam with the local oscillator beam.

38. (Original) The method of communication as recited in Claim 37 wherein the step of deflecting the laser beam includes:

writing a diffraction grating pattern responsive to the second hologram on a spatial light modulator; and

applying the laser beam to the spatial light modulator.

39. (Original) The method of communication as recited in Claim 38 further comprising;

generating a beacon beam by writing a spatially random phase profile on the spatial light modulator; and

deriving the conjugate beacon beam from the beacon beam.

40. (Original) The method of communication as recited in Claim 36 wherein the deflection angle is proportional to the angle of incidence.

41. (Original) The method of communication as recited in Claim 36 wherein the fixed course of the laser beam is parallel to the local oscillator beam.

42. (Canceled)

43. (Canceled)

44. (Canceled)

45. (Canceled)

46. (Canceled)

47. (Canceled)

48. (Canceled)

49. (Canceled)

50. (Canceled)

51. (Canceled)

52. (Canceled)

53. (New) The method of communication as recited in Claim 26, wherein the communications beam is comprised of single photons.

54. (New) The method of communication as recited in Claim 26, wherein a receivers aperture diameter can be arranged in the fixed optical path of the received communications beam after deflection by the processed grating pattern in the spatial light modulator.

55. (New) The method of communication as recited in Claim 33, wherein the conjugate beacon beam fills the entire receiver aperture upon the return path.